

# **Appendix I**

## **Build Your Own Alternative**

## **Appendix I**

### **BUILD YOUR OWN ALTERNATIVE**

#### **A: "Build Your Own Alternative"**

This appendix was provided in the draft version of this EIS to enable people throughout the Region to build their own versions of the "right" plan for the fish and wildlife mitigation and recovery effort. Using this information as part of the unified planning approach, the different perspectives provided through the alternatives that people suggested, as well as other regional guidance, helped shape the ultimate Policy Direction that the BPA Administrator is selecting as the current preferred alternative direction (see Section 3.2.8, BPA Preferred Alternative 2002 (PA 2002)). BPA is retaining this "Build Your Own Alternative" appendix in this final EIS to assist with future policy direction changes and modifications.

Readers should recognize that policies underpin the Region's fish and wildlife mitigation and recovery choices, and this is why BPA has chosen to focus this EIS on a range of five distinctly different, but reasonably foreseeable, Policy Directions (Chapter 3). Through "mixing and matching," these basic Policy Directions made it possible for BPA to gain the necessary information to arrive at a unified perspective for guiding its fish and wildlife program implementation and expenditures. By applying this methodology, BPA has been able to assess the environmental consequences of its preferred alternative Policy Direction, PA 2002, and will be able to do so when future policy direction changes are necessary. This same methodology also makes it possible for others to do the same.

#### **How To Apply This Methodology**

To help in the development and understanding of building your own alternative, BPA has provided illustrations and instructions in this appendix on how it is done from the information and data in this EIS. As you begin this procedure, please keep in mind the need to stay focused on the overall objective you are trying to accomplish with your "rebuilt" proposal. It is easy to get mired down in details and exceptions to the rule. Since the science for fish and wildlife recovery is uncertain and still developing, much of the difficulty you may experience will be with conflicting social mandates, laws, and personal values (Chapters 2, 3, and 5). This conflict and need for making trade-offs is the greatest challenge in making public policy. Remember, trying to accommodate too many values will likely lead to an outcome that blurs them all.

There are three basic steps to building your own alternative:

**Step one: review the information used for the Status Quo (baseline) to which future fish and wildlife mitigation and recovery effort policy directions will be compared.** Review Section 5.1 in Chapter 5 to gain an understanding of the

environmental conditions that the five basic Policy Directions in this EIS were compared and evaluated against. Table B below gives a general sense of the Status Quo with a visual representation distributed across the five Policy Directions.

**Step two: determine the basic theme and actions that will best define the proposal for your fish and wildlife mitigation and recovery choices.** Review the philosophy or theme behind each of the five basic Policy Directions that span the range of alternatives in Section 3.2 in Chapter 3. Then review the actions in the Sample Implementation Actions tables for the Policy Directions in Volume 3. The tables in Volume 3 offer numerous examples of the types of actions that have been proposed throughout the Region by individuals, interest groups, tribes, states, and Federal agencies. The sample actions are sorted by Key Issue areas (Chapter 3, Section 3.1.2) and grouped into one of the five Policy Directions. Finish this step by considering the different Policy Direction themes and the sample actions and then selecting the theme(s) and actions that best represent your proposal for each of the Key Issue areas. Table A below is provided to help track the choices of actions and develop a visual representation of your proposal for a Policy Direction. It is likely that your proposed Policy Direction will be a combination of more than one of the five basic Policy Directions. See Section B for completed charts on several other illustrations of proposals throughout the Region (Tables C-L; N and O). Also review Section C, Table M, below for a visual representation of BPA's PA 2002.

**Step three: determine the environmental consequences of your proposal.** Review Chapter 5, Sections 5.1 and 5.2 to get a general understanding of how and where fish, wildlife, and human effects occur with respect to any plan for fish and wildlife mitigation and recovery. Keep in mind that there are trade-offs among impact areas that provide checks and balances for those impact areas.

- The **land, water, and fish/wildlife** sections are presented from the fish and wildlife perspective, because they are the main areas associated with fish and wildlife and their habitats.
- The **air, social, and economic** sections are presented from the human perspective, because these are the main areas of immediate concern to the daily lives of humans.

Obviously, some of these categories affect both fish and wildlife and humans. The grouping was not meant to be exclusive: rather, the objective was to ensure an understanding of how the activities and actions taken to help fish/wildlife or humans may affect each other.

Next, review Section 5.3 for an explanation of how the effects from each Policy Direction change compared to the Status Quo. A shading illustration based on the explanation is given for each environmental consequence. These illustrations offer a visual cue as to whether a set of actions are better or worse compared to Status Quo. Using these explanations and illustrations, consider where your proposal lies in relationship to the different Policy Directions. Match the effects with your selected set of actions. Because you probably mixed portions of different Policy Directions together, you will need to do the same with the environmental consequences areas in order to accurately reflect your "mix and match" approach. See Section 3A at the end of

Chapter 3, PA 2002, for a completed example of the mixing and matching of Policy Directions, as well as an assessment of environmental consequences.

**Several cautions are in order for anyone wishing to "mix and match."**

- *Compatibility.* Not all combinations of actions are possible; some actions are mutually exclusive.
- *Consistency.* Choosing actions from several different Policy Direction implementation actions may result in a plan that is truly indicative of none.
- *Effectiveness.* A "scattershot" technique that tries to reach too many goals with too little money for each will likely dilute the desired effect.
- *Clarity and Coordination.* The more that different "pieces" of different Directions are mixed, the more likely that confusion might result in interpreting who does what and how.
- *Cause-and-Effect.* If you change or substitute an action, remember that you are also substituting the effects (natural environment and/or social and economic environment) of that action.

**Table A: Visual Aid for New Proposal Alternative**

Key Regional Issues	Proposal #1					Proposal #2				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>										
1-1 Anadromous Fish										
1-2 Resident Fish										
1-3 Introduced Species										
1-4 Wildlife										
1-5 Pred. Anad. Fish										
1-6 Watersheds										
1-7 Tributaries										
1-8 Mainstem Col.										
1-9 Reservoirs										
1-10 Estuaries/Ocean										
1-11 Water Quality										
<b>2 Harvest</b>										
2-1 Anadromous Fish										
2-2 Resident Fish										
2-3 Wildlife										
<b>3 Hatcheries</b>										
3-1 Anadromous Fish										
3-2 Resident Fish										
<b>4 Hydro</b>										
4-1 Dam Mod. & Facil.										
4-2 Hydro Operations										
4-3 Spill										
4-4 Flow										
4-5 Reservoir Levels										
4-6 Water Quality										
4-7 Juv. Fish Trans.										
4-8 Adult Fish Pass.										
4-9 Flood Control										
<b>5 Power</b>										
5-1 Existing Gen.										
5-2 New Energy Res.										
5-3 Trans. Reliability										
<b>6 Industry</b>										
6-1 Industrial Dev.										
6-2 Alum. and Chem.										
6-3 Mining										
6-4 Pulp and Paper										
<b>7 Transportation</b>										
7-1 Navigation/Barge										
7-2 Trucking & Rail										
<b>8 Agriculture</b>										
8-1 Irrigation										
8-2 Pest./Ag. Practices										
8-3 Grazing										
8-4 Forestry										
<b>9 Commercial Fishing</b>										
<b>10 Resid./Comm. Dev.</b>										
<b>11 Recreation</b>										
<b>12 Tribes</b>										
12-1 Tribal Harvest										
12-2 Trad./Cult./Spirit										

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

## B: Illustrations of Proposals

**Table B: Visual Representation of Status Quo**

Key Regional Issues	Status Quo				
	BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF
<b>1 Habitat</b>					
1-1 Anadromous Fish					
1-2 Resident Fish					
1-3 Introduced Species					
1-4 Wildlife					
1-5 Pred. Anad. Fish					
1-6 Watersheds					
1-7 Tributaries					
1-8 Mainstem Col.					
1-9 Reservoirs					
1-10 Estuaries/Ocean					
1-11 Water Quality					
<b>2 Harvest</b>					
2-1 Anadromous Fish					
2-2 Resident Fish					
2-3 Wildlife					
<b>3 Hatcheries</b>					
3-1 Anadromous Fish					
3-2 Resident Fish					
<b>4 Hydro</b>					
4-1 Dam Mod. & Facil.					
4-2 Hydro Operations					
4-3 Spill					
4-4 Flow					
4-5 Reservoir Levels					
4-6 Water Quality					
4-7 Juv. Fish Trans.					
4-8 Adult Fish Pass.					
4-9 Flood Control					
<b>5 Power</b>					
5-1 Existing Gen.					
5-2 New Energy Res.					
5-3 Trans. Reliability					
<b>6 Industry</b>					
6-1 Industrial Dev.					
6-2 Alum. And Chem.					
6-3 Mining					
6-4 Pulp and Paper					
<b>7 Transportation</b>					
7-1 Navigation/Barge					
7-2 Trucking & Rail					
<b>8 Agriculture</b>					
8-1 Irrigation					
8-2 Pest./Ag. Practices					
8-3 Grazing					
8-4 Forestry					
<b>9 Commercial Fishing</b>					
<b>10 Resid./Comm. Dev.</b>					
<b>11 Recreation</b>					
<b>12 Tribes</b>					
12-1 Tribal Harvest					
12-2 Trad./Cult./Spirit					

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**Table C: The Council's Framework Concept Papers Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Framework Concept Paper 1					Framework Concept Paper 2					Framework Concept Paper 3					Framework Concept Paper 4					Framework Concept Paper 5				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

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**Table D: The Council's Framework Concept Papers Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Framework Concept Paper 6					Framework Concept Paper 7					Framework Concept Paper 8					Framework Concept Paper 9					Framework Concept Paper 10				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
1 Habitat																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
2 Harvest																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
3 Hatcheries																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
4 Hydro																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
5 Power																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
6 Industry																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
7 Transportation																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
8 Agriculture																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
9 Commercial Fishing																									
10 Resid./Comm. Dev.																									
11 Recreation																									
12 Tribes																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

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**Table E: The Council's Framework Concept Papers Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Framework Concept Paper 11					Framework Concept Paper 12					Framework Concept Paper 13					Framework Concept Paper 14					Framework Concept Paper 15				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

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**Table F: The Council's Framework Concept Papers Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Framework Concept Paper 16					Framework Concept Paper 17					Framework Concept Paper 18					Framework Concept Paper 19					Framework Concept Paper 20				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

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**Table G: The Council's Framework Concept Papers Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Framework Concept Paper 21					Framework Concept Paper 22					Framework Concept Paper 23					Framework Concept Paper 24					Framework Concept Paper 25				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

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**Table H: The Council's Framework Concept Papers and Alternatives Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Framework Concept Paper 26					Framework Concept Paper 27					Framework Concept Paper 28					Multi-Species Framework Alt. 1					Multi-Species Framework Alt. 2				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

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**Table I: The Council's Framework Alternatives Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Multi-Species Framework Alt. 3					Multi-Species Framework Alt. 4					Multi-Species Framework Alt. 5					Multi-Species Framework Alt. 6					Multi-Species Framework Alt. 7				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

**Table J: Other Federal Reference Documents Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Lower Snake River Feasibility Study					ICBEMP FEIS					ICBEMP DEIS					INFISH/PACFISH EAs					INFISH/PACFISH BiOps				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

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**Table K: Other State Reference Documents Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Idaho's Anadromous Fish Status/Recovery					The Oregon Plan Salmon/Watersheds					Washington's Strategy Salmon Recovery				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>															
1-1 Anadromous Fish															
1-2 Resident Fish															
1-3 Introduced Species															
1-4 Wildlife															
1-5 Pred. Anad. Fish															
1-6 Watersheds															
1-7 Tributaries															
1-8 Mainstem Col.															
1-9 Reservoirs															
1-10 Estuaries/Ocean															
1-11 Water Quality															
<b>2 Harvest</b>															
2-1 Anadromous Fish															
2-2 Resident Fish															
2-3 Wildlife															
<b>3 Hatcheries</b>															
3-1 Anadromous Fish															
3-2 Resident Fish															
<b>4 Hydro</b>															
4-1 Dam Mod. & Facil.															
4-2 Hydro Operations															
4-3 Spill															
4-4 Flow															
4-5 Reservoir Levels															
4-6 Water Quality															
4-7 Juv. Fish Trans.															
4-8 Adult Fish Pass.															
4-9 Flood Control															
<b>5 Power</b>															
5-1 Existing Gen.															
5-2 New Energy Res.															
5-3 Trans. Reliability															
<b>6 Industry</b>															
6-1 Industrial Dev.															
6-2 Alum. and Chem.															
6-3 Mining															
6-4 Pulp and Paper															
<b>7 Transportation</b>															
7-1 Navigation/Barge															
7-2 Trucking & Rail.															
<b>8 Agriculture</b>															
8-1 Irrigation															
8-2 Pest./Ag. Practices															
8-3 Grazing															
8-4 Forestry															
<b>9 Commercial Fishing</b>															
10 Resid./Comm. Dev.															
11 Recreation															
<b>12 Tribes</b>															
12-1 Tribal Harvest															
12-2 Trad./Cult./Spirit															

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

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**Table L: Other Reference Documents Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Spirit of the Salmon					Human Effects Analysis Appendix D					Draft All-H Paper, Dec. 1999					NW Forest Plan ROD					SOR EIS				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>																									
1-1 Anadromous Fish																									
1-2 Resident Fish																									
1-3 Introduced Species																									
1-4 Wildlife																									
1-5 Pred. Anad. Fish																									
1-6 Watersheds																									
1-7 Tributaries																									
1-8 Mainstem Col.																									
1-9 Reservoirs																									
1-10 Estuaries/Ocean																									
1-11 Water Quality																									
<b>2 Harvest</b>																									
2-1 Anadromous Fish																									
2-2 Resident Fish																									
2-3 Wildlife																									
<b>3 Hatcheries</b>																									
3-1 Anadromous Fish																									
3-2 Resident Fish																									
<b>4 Hydro</b>																									
4-1 Dam Mod. & Facil.																									
4-2 Hydro Operations																									
4-3 Spill																									
4-4 Flow																									
4-5 Reservoir Levels																									
4-6 Water Quality																									
4-7 Juv. Fish Trans.																									
4-8 Adult Fish Pass.																									
4-9 Flood Control																									
<b>5 Power</b>																									
5-1 Existing Gen.																									
5-2 New Energy Res.																									
5-3 Trans. Reliability																									
<b>6 Industry</b>																									
6-1 Industrial Dev.																									
6-2 Alum. and Chem.																									
6-3 Mining																									
6-4 Pulp and Paper																									
<b>7 Transportation</b>																									
7-1 Navigation/Barge																									
7-2 Trucking & Rail.																									
<b>8 Agriculture</b>																									
8-1 Irrigation																									
8-2 Pest./Ag. Practices																									
8-3 Grazing																									
8-4 Forestry																									
<b>9 Commercial Fishing</b>																									
<b>10 Resid./Comm. Dev.</b>																									
<b>11 Recreation</b>																									
<b>12 Tribes</b>																									
12-1 Tribal Harvest																									
12-2 Trad./Cult./Spirit																									

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.



**KEY ISSUES****1 Habitat**

1-1 Anadromous Fish  
1-4 Wildlife  
1-7 Tributaries  
1-10 Estuary and Ocean

1-2 Resident Fish  
1-5 Predator Anadromous Fish  
1-8 Mainstem Columbia  
1-11 Water Quality

1-3 Introduced Species  
1-6 Watersheds  
1-9 Reservoirs

**2 Harvest**

2-1 Anadromous Fish

2-2 Resident Fish

2-3 Wildlife

**3 Hatcheries**

3-1 Anadromous Fish

3-2 Resident Fish

**4 Hydro**

4-1 Dam Modifications and Facilities  
4-4 Flow  
4-7 Juvenile Fish Migration & Transport

4-2 Hydro Operations  
4-5 Reservoir Levels  
4-8 Adult Fish Passage

4-3 Spill  
4-6 Water Quality  
4-9 Flood Control

**5 Power**

5-1 Existing Generation

5-2 New Energy Resources

5-3 Transmission Reliability

**6 Industry**

6-1 Industrial Development  
6-4 Pulp and Paper

6-2 Aluminum and Chemical

6-3 Mining

**7 Transportation**

7-1 Navigation and Barging

7-2 Trucking & Railroad

**8 Agriculture**

8-1 Irrigation  
8-4 Forestry

8-2 Pesticides/Agricultural Practices

8-3 Grazing

**9 Commercial Fishing****10 Residential and Commercial Development****11 Recreation****12 Tribes**

12-1 Tribal Harvest

12-2 Tradition, Culture, & Spirituality

## **C: Illustration of PA 2002**

The essence of BPA's PA 2002 is visually illustrated in Table M below by charting several of the Sample Implementation Actions in Volume 3. The sample actions used to create the table are taken from major regional documents shown in Tables N and O. The documents include the NMFS 2000 Biological Opinion, USFWS 2000 Biological Opinion, 2002-2006 Implementation Actions (Action Agencies' 5-Year Plan), Council's 2000 Fish and Wildlife Program, Governor's Recommendations, and Tribal Vision. The information from these documents provided BPA both regional guidance on important fish and wildlife policy directions, and more site-specific sample implementation actions for the implementation of fish and wildlife mitigation and recovery.

The illustration in Table M below provides an example of how the different sample implementation actions from the regional documents look when combined and dispersed across the five basic Policy Directions evaluated in this EIS. The black boxes in the Table demonstrate where two or more of the regional documents overlap. It clearly shows that the overall Policy Direction for the Region is focused on the combination of Weak Stocks Focus and Sustainable Use Focus Policy Directions. It has been made clear from the Corps' September, 2002, Record of Decision on the Lower Snake River Juvenile Salmon Migration Feasibility Study that the Lower Snake River dams would not be breached at this time. Therefore, the sample actions from the Weak Stocks Focus would be confined to those not involving breaching dams.

The greatest alignment of actions is in relationship to a Policy Direction or Directions representing the central theme of the actions being proposed in the Region. For PA 2002, it is evident that the Weak Stock Focus and Sustainable Use Focus Policy Directions make up the core of sample actions. Since the current plan does not propose breaching dams, the central tendency leans somewhat more toward the Sustainable Use Focus Policy Direction. As shown, however, there are sample actions in both Policy Directions.

The reason for describing the central tendency of the Policy Directions is twofold: (1) it is easier to determine if future implementing actions are consistent with previous actions and planning goals; and (2) to ensure that expenditures are made efficiently when trying to achieve the overall objective. Earlier in this Appendix and in Chapter 3 we explained how being spread across too many Policy Directions could cause confusion on the part of those who must implement actions in the future. It is much more difficult to determine whether future actions are consistent with the previous actions if the overall direction is unclear. Also, consider the time and money that can be spent trying to settle disagreements over what was intended by past actions if there is not a clear Policy Direction guiding the implementation of future actions.

See Section 3A at the end of Chapter 3 in conjunction with Table M, for a complete assessment of the environmental consequences of PA 2002.

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**Table M: Visual Representation of PA 2002**

Key Regional Issues	PA 2002				
	BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF
<b>1 Habitat</b>					
1-1 Anadromous Fish					
1-2 Resident Fish					
1-3 Introduced Species					
1-4 Wildlife					
1-5 Pred. Anad. Fish					
1-6 Watersheds					
1-7 Tributaries					
1-8 Mainstem Col.					
1-9 Reservoirs					
1-10 Estuaries/Ocean					
1-11 Water Quality					
<b>2 Harvest</b>					
2-1 Anadromous Fish					
2-2 Resident Fish					
2-3 Wildlife					
<b>3 Hatcheries</b>					
3-1 Anadromous Fish					
3-2 Resident Fish					
<b>4 Hydro</b>					
4-1 Dam Mod. & Facil.					
4-2 Hydro Operations					
4-3 Spill					
4-4 Flow					
4-5 Reservoir Levels					
4-6 Water Quality					
4-7 Juv. Fish Trans.					
4-8 Adult Fish Pass.					
4-9 Flood Control					
<b>5 Power</b>					
5-1 Existing Gen.					
5-2 New Energy Res.					
5-3 Trans. Reliability					
<b>6 Industry</b>					
6-1 Industrial Dev.					
6-2 Alum. and Chem.					
6-3 Mining					
6-4 Pulp and Paper					
<b>7 Transportation</b>					
7-1 Navigation/Barge					
7-2 Trucking & Rail.					
<b>8 Agriculture</b>					
8-1 Irrigation					
8-2 Pest./Ag. Practices					
8-3 Grazing					
8-4 Forestry					
<b>9 Commercial Fishing</b>					
<b>10 Resid./Comm. Dev.</b>					
<b>11 Recreation</b>					
<b>12 Tribes</b>					
12-1 Tribal Harvest					
12-2 Trad./Cult./Spirit					

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

**Table N: 2000 BiOps Related Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Action Agencies' 2002-2006 Imp. Plan					NMFS BiOp Actions Dec. 2000					USFWS BiOp Actions Dec. 2000				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>															
1-1 Anadromous Fish															
1-2 Resident Fish															
1-3 Introduced Species															
1-4 Wildlife															
1-5 Pred. Anad. Fish															
1-6 Watersheds															
1-7 Tributaries															
1-8 Mainstem Col.															
1-9 Reservoirs															
1-10 Estuaries/Ocean															
1-11 Water Quality															
<b>2 Harvest</b>															
2-1 Anadromous Fish															
2-2 Resident Fish															
2-3 Wildlife															
<b>3 Hatcheries</b>															
3-1 Anadromous Fish															
3-2 Resident Fish															
<b>4 Hydro</b>															
4-1 Dam Mod. & Facil.															
4-2 Hydro Operations															
4-3 Spill															
4-4 Flow															
4-5 Reservoir Levels															
4-6 Water Quality															
4-7 Juv. Fish Trans.															
4-8 Adult Fish Pass.															
4-9 Flood Control															
<b>5 Power</b>															
5-1 Existing Gen.															
5-2 New Energy Res.															
5-3 Trans. Reliability															
<b>6 Industry</b>															
6-1 Industrial Dev.															
6-2 Alum. and Chem.															
6-3 Mining															
6-4 Pulp and Paper															
<b>7 Transportation</b>															
7-1 Navigation/Barge															
7-2 Trucking & Rail.															
<b>8 Agriculture</b>															
8-1 Irrigation															
8-2 Pest./Ag. Practices															
8-3 Grazing															
8-4 Forestry															
<b>9 Commercial Fishing</b>															
<b>10 Resid./Comm. Dev.</b>															
<b>11 Recreation</b>															
<b>12 Tribes</b>															
12-1 Tribal Harvest															
12-2 Trad./Cult./Spirit															

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.

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**Table O: Major Regional Guidance Sample Implementation Actions From Volume 3 Spread Across Five Basic Policy Directions**

Key Regional Issues	Council's 2000 Fish and Wildlife Program					Governor's Recommendations					Tribal Vision				
	BPA Alt. Policy Dir.					BPA Alt. Policy Dir.					BPA Alt. Policy Dir.				
	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF	NF	WS	SU	SS	CF
<b>1 Habitat</b>															
1-1 Anadromous Fish															
1-2 Resident Fish															
1-3 Introduced Species															
1-4 Wildlife															
1-5 Pred. Anad. Fish															
1-6 Watersheds															
1-7 Tributaries															
1-8 Mainstem Col.															
1-9 Reservoirs															
1-10 Estuaries/Ocean															
1-11 Water Quality															
<b>2 Harvest</b>															
2-1 Anadromous Fish															
2-2 Resident Fish															
2-3 Wildlife															
<b>3 Hatcheries</b>															
3-1 Anadromous Fish															
3-2 Resident Fish															
<b>4 Hydro</b>															
4-1 Dam Mod. & Facil.															
4-2 Hydro Operations															
4-3 Spill															
4-4 Flow															
4-5 Reservoir Levels															
4-6 Water Quality															
4-7 Juv. Fish Trans.															
4-8 Adult Fish Pass.															
4-9 Flood Control															
<b>5 Power</b>															
5-1 Existing Gen.															
5-2 New Energy Res.															
5-3 Trans. Reliability															
<b>6 Industry</b>															
6-1 Industrial Dev.															
6-2 Alum. and Chem.															
6-3 Mining															
6-4 Pulp and Paper															
<b>7 Transportation</b>															
7-1 Navigation/Barge															
7-2 Trucking & Rail.															
<b>8 Agriculture</b>															
8-1 Irrigation															
8-2 Pest./Ag. Practices															
8-3 Grazing															
8-4 Forestry															
<b>9 Commercial Fishing</b>															
<b>10 Resid./Comm. Dev.</b>															
<b>11 Recreation</b>															
<b>12 Tribes</b>															
12-1 Tribal Harvest															
12-2 Trad./Cult./Spirit															

**BPA Alternative Policy Direction:** NF = Natural Focus; WS = Weak Stock; SU = Sustained Use; SS = Strong Stock; CF = Commerce Focus.